

REMARKS

This Amendment is fully responsive to the non-final Office Action dated April 24, 2009, issued in connection with the above-identified application. Claims 14-18 are pending in the present application. With this Amendment, claims 14-18 have been amended; and claims 19 and 20 have been added. No new matter has been introduced by the amendments made to the claims or by the new claims added. Favorable reconsideration is respectfully requested.

To facilitate the Examiner's reconsideration of the present application, the Applicants have provided amendments to the specification and the abstract. The changes to the specification and the abstract include minor editorial and clarifying changes. Replacement paragraphs and a replacement abstract are enclosed. No new matter has been introduced by the amendments made to the specification and the abstract.

I. Interview Summary

The Applicants thank Examiner Dazenski and his supervisor for granting the personal interview (hereafter "interview") with the Applicants' representatives on July 8, 2009. During the interview, the distinguishable features between the present invention (i.e., as recited in independent claim 14, as an exemplary independent claim) and the cited prior art (i.e., the Okada reference) were discussed in detail. Proposed amendments to independent claim 14 were also discussed.

During the interview, it was first noted that the Okada reference fails to disclose or suggest "an information generation unit that generates a plurality of picture parameter sets, *wherein each of the picture parameter sets is a parameter group to be referenced for decoding pieces of the coded picture data.*" That is, the Okada reference differs for this feature of the present invention in that the data in the PCR Maps and PTS Maps is not used for directly decoding, as in the present invention.

Second, it was noted that the Okada reference fails to disclose or suggest "a second storage unit that stores first picture parameter sets in a first access unit that is *located at a head of the random access unit.*" The Examiner indicated that ¶ [216] of the Okada reference states that "stream recording always starts from the leading sector in the ECC block," which could be broadly interpreted as "located at a head of the random access unit." Again, however, it was

noted that the information at the leading sector of the ECC block in the Okada reference is not related to decoding.

Third, it was noted that the Okada reference fails to disclose or suggest “a second storage unit that is operable to have *a predetermined maximum number* of the first picture parameter sets which can be stored in the first access unit.”

At the conclusion of the interview, the Examiner suggested amending the independent claims to help distinguish the present invention from the Okada reference. For example, the Examiner suggested amending the independent claims to clarify that “each of the picture parameter sets is *being used* for decoding each piece of the coded picture data.” In other words, the independent claims should be further amended to remove the phrase “*referenced for*.”

The Examiner indicated that the suggested amendments (if made) would help to further distinguish the present invention from the cited prior art. However, the Examiner also indicated that further search and/or consideration would be necessary prior to making a final determination regarding the allowability of any claims.

II. Rejection under 35 U.S.C. 112, second paragraph

In the Office Action, claims 14, 16 and 18 have been rejected under 35 U.S.C. 112, second paragraph, for being indefinite. Specifically, the Examiner alleges that claims 14, 16 and 18 include the phrase “predetermined condition” which is not clearly defined in the specification in a way that one of ordinary skill in the art would understand what is meant by the phrase. The Applicants have herein amended the above claims to remove the phrase “predetermined condition.” Accordingly, withdrawal of the rejection to claims 14, 16 and 18 under 35 U.S.C. 112, second paragraph, is now respectfully requested.

III. Rejection under 35 U.S.C. 102(b)

In the Office Action, claims 14 -18 have been rejected under 35 U.S.C. 102(b) as being anticipated by Okada et al. (U.S. Publication No. 2002/0018643, hereafter “Okada”). The Applicants have amended independent claims 14, 16 and 18. The amendments to independent claims 14, 16 and 18 are consistent with the recommendations made by the Examiner during the interview conducted on July 8, 2009. Additionally, the Applicants have presented additional amendments to the claims to help further distinguish the present invention from the cited prior

art.

For example, independent claim 14 (as amended) recites the following features:

“[a] picture coding apparatus which codes pictures on a picture-by-picture basis, and generates a random access unit as a part of a stream, the random access unit including the coded pictures, said apparatus comprising:

a coding unit operable to generate pieces of coded picture data by coding the pictures on a picture-by-picture basis;

an information generation unit operable to generate a plurality of picture parameter sets , each of the picture parameter sets being used for decoding each piece of the coded picture data;

a first storage unit operable to store the pieces of the coded picture data respectively in access units that constitute the random access unit;

a second storage unit operable to store first picture parameter sets in a first access unit that is located at a head of the random access unit; and

a third storage unit operable to store a second picture parameter set in a second access unit, coded picture data of the second access unit referring to the second picture parameter set,

wherein each of the picture parameter sets includes at least one of a type of variable length coding method, an initial value of quantization step, and a number of reference pictures.” (Emphasis added).

The features emphasized above in independent claim 14 are similarly recited in independent claims 16 and 18. That is, independent claims 16 and 18 are directed to methods that include steps directed to the features of the apparatus of independent claim 14. Additionally, the features noted above in independent claim 14 (and similarly recited in independent claims 16 and 18) are fully supported by the Applicants’ disclosure.

The present invention (as recited in independent claims 14, 16 and 18) is distinguishable over the cited prior art based on at least the following features:

- 1) a plurality of first picture parameter sets that include at least one of a type of variable length coding method, an initial value of quantization step, and a number of reference pictures, and which are stored in a first access unit located at a head of a random access unit; and

- 2) a second picture parameter set stored in a second access unit, wherein coded picture data of the second access unit is referring to the second picture parameter set.

The present invention (as recited in independent claims 14, 16 and 18) ensure efficient and accurate trick-play because the decoder can always get a picture parameter set from the first access unit or the second access unit.

In the Office Action, the Examiner relies on Okada for disclosing or suggesting all the features recited in independent claims 14, 16 and 18. However, the Applicants assert that Okada fails to disclose or suggest at least the above features of the present invention (as recited in independent claims 14, 16 and 18).

In the Office Action, the Examiner relies on a PCR Map and a PTS Map (hereafter “access maps”) disclosed in Okada (i.e., staring at ¶ [214]). However, the access maps merely show the point from where a decoder can start to decode. The access maps disclosed in Okada are clearly different from a picture parameter set that includes at least one of a type of length coding method, an initial value of quantization step, and a number of reference pictures, as in the present invention (now recited in independent claims 14, 16 and 18).

Moreover, the place where the access maps are stored is different from that of the stream. Therefore, Okada fails to disclose or suggest storing a plurality of the picture parameter sets in a first access unit that is located at the head of the random access unit (i.e., wherein each of the picture parameter sets is used for decoding each piece of the coded picture data). Therefore, the system or method disclosed in Okada cannot ensure that a decoder can always get a picture parameter set to perform trick-play.

Accordingly, Okada fails to disclose or suggest at least the following features of independent claims 14, 16 and 18 (as amended):

- 1) a plurality of first picture parameter sets that include at least one of a type of variable length coding method, an initial value of quantization step, and a number of reference pictures, and which are stored in a first access unit located at a head of a random access unit; and
- 2) a second picture parameter set stored in a second access unit, wherein coded picture data of the second access unit is referring to the second picture parameter set.

Based on the above discussion, Okada fails to anticipate or render obvious independent claims 14, 16 and 18 (as amended). Additionally, Okada fails to anticipate or render obvious claims 15, 17, 19 and 20 at least by virtue of their respective dependencies from independent claims 14, 16 and 18.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the present application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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